

Applicant : Patrick V. Warren et al.
Serial No. : 09/481,733
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Attorney's Docket No.: 09010-017004

AMENDMENT

Please amend the application as follows:

In the specification:

Please replace the paragraph beginning at page 26, line 25 with the following rewritten paragraph:

-- **Aquifex Histidinol-phosphate Aminotransferase** --

In the claims:

Please replace claims 1, 17, 27, and 33 with amended claims 1, 17, 27, and 33 as follows:

-- 1. (Thrice Amended) An isolated polynucleotide selected from the group consisting of:

a) a polynucleotide encoding an enzyme with aminotransferase activity wherein the amino acid sequence of the enzyme is at least 70% identical to SEQ ID NOS:25-32; and

b) a polynucleotide comprising a nucleic acid sequence complementary to a polynucleotide of a).

17. (Twice Amended) A nucleic probe comprising a nucleic acid sequence wherein the nucleic acid sequence consists of an oligonucleotide from at least 10 to about 50 nucleotides in length and having a region of nucleotides that is at least 70% complementary to a nucleic acid target region of a nucleic acid encoding an amino acid sequence selected from the group consisting of SEQ ID NOS:25-32 and which hybridizes to a nucleic acid target region of a nucleic acid encoding an enzyme with aminotransferase activity to form a detectable target:probe duplex under conditions that

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include 0.9 M NaCl, 5.0 mM NaH₂PO₄, 5.0 mM Na₂ EDTA, 0.5% SDS and 10X Denhardt's at about 45°C.

27. (Amended) The polynucleotide of claim 2 which encodes an adenosyl-8-amino-7-oxononanoate aminotransferase that is at least 70% identical to the enzyme of SEQ ID NO:27.

33. (Amended) An isolated polypeptide encoding an enzyme with aminotransferase activity, wherein the polynucleotide encodes the enzyme of SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, or SEQ ID NO:32. --

Please add claims 36 and 37.

-- 36. (NEW) A nucleic probe comprising a nucleic acid sequence consisting of a sequence which hybridizes under stringent conditions to a polynucleotide that encodes an amino acid sequence selected from the group consisting of SEQ ID NOS:25-32, or a complement of the polynucleotide.

37. (NEW) A nucleic probe comprising a nucleic acid sequence consisting of a sequence of at least 15 bases complementary or identical to a polynucleotide that encodes an amino acid sequence selected from the group consisting of SEQ ID NOS:25-32. --

agreed
allowed